

REMARKS

Reconsideration of the application is requested.

Claims 1-20 remain in the application. Claims 1-20 are subject to examination.

In item 2 on pages 2-5 of the above-identified Office Action, claims 1-5, 14-17 and 19 have been rejected as being obvious over U.S. Patent No. 5,166,953 to Hershey et al. (hereinafter Hershey) in view of U.S. Patent No. 6,459,704 to Jandrell (hereinafter Jandrell) under 35 U.S.C. § 103.

As will be explained below, it is believed that the claims were patentable over the cited art in their original form and, therefore, the claims have not been amended to overcome the references.

The invention of the instant application relates to a data transmission system with two stations, between which data bursts are interchanged via radio. Both stations transmit and receive data bursts. The first station sends the data bursts at a first channel mid-frequency and receives the data bursts at a second channel mid-frequency. In order that the data transmission system works, the second station must send the data bursts at the second mid-frequency and must

receive the data bursts at the first channel mid-frequency. After receiving data bursts, both the first station and the second station down-mix the received signals to an intermediate frequency. Furthermore, a frequency jump of the channel mid-frequency occurs between the downlink transmission (which is the transmission from the first station to the second station) and the uplink transmission (which is the transmission from the second station to the first station). Therefore there is a difference between the first channel mid-frequency and the second channel mid-frequency. A unique feature of the invention is that this difference of the two channel mid-frequencies equals the intermediate frequency. The advantage of this arrangement is that the local oscillator frequencies in both stations do not need to be switched between the downlink transmission and the uplink transmission. As a consequence, the guard time interval between the downlink transmission and the uplink transmission can be shortened because there is no need for any stabilization phase between these two transmissions.

Hershey only discloses a data transmission system with two radio stations (see Fig. 2), however Hershey does not teach that a frequency hopping method is used.

The frequency hopping method is introduced by Jandrell (see

column 2, lines 37 to 40). Jandrell also teaches that the received signals are down-mixed to an intermediate frequency (see column 7, lines 45 to 49). But Jandrell fails to teach that the magnitude of the frequency jump between the downlink transmission and the uplink transmission corresponds to the intermediate frequency. This fact is however unique to defining the invention of the instant application and cannot be neglected. This feature helps to increase the data transmission rate and simplifies the manner of functioning during the data transmission. Neither Jandrell nor Hershey teaches this feature, e.g. that the frequency jump equals the intermediate frequency. Claims 1 and 20 of the instant application recite "a frequency hop between the first channel mid-frequency used for a downlink transmission from said first station to said second station and the second channel mid-frequency used for an uplink transmission from said second station to said first station has a magnitude corresponding to a magnitude of the intermediate frequency". Claim 14 of the instant application recites "a second channel mid-frequency differing from the first channel mid-frequency by the intermediate frequency". Neither Jandrell nor Hershey are believed to teach these features.

In item 3 on pages 5-6 of the above-identified Office Action, claims 6-7, 9-10 and 18 have been rejected as being obvious

Appl. No. 10/629,924
Amdt. Dated July 28, 2005
Reply to Office Action of April 28, 2005

over U.S. Patent No. 5,166,953 to Hershey et al. (hereinafter Hershey) in view of U.S. Patent No. 6,459,704 to Jandrell (hereinafter Jandrell) and further in view of U.S. Patent No. 6,438,358 to Higuchi (hereinafter Higuchi) under 35 U.S.C. § 103.

Claims 6-7, 9-10 and 18 depend from one of claim 1 or 14 which are believed to be allowable as stated in the above-identified arguments and therefore are also believed to be allowable.

In item 4 on pages 7-8 of the above-identified Office Action, claims 11-13 have been rejected as being obvious over U.S. Patent No. 5,166,953 to Hershey et al. (hereinafter Hershey) in view of U.S. Patent No. 6,459,704 to Jandrell (hereinafter Jandrell), further in view of U.S. Patent No. 6,438,358 to Higuchi (hereinafter Higuchi) and still further in view of U.S. Patent No. 6,836,648 to Ritter (hereinafter Ritter) under 35 U.S.C. § 103.

Claims 11-13 depend from claim 14 which is believed to be allowable as stated in the above-identified arguments and therefore are also believed to be allowable.

It is accordingly believed to be clear that none of the references, whether taken alone or in any combination, either show or suggest the features of claims 1, 14 or 20. Claims 1, 14 and 20 are, therefore, believed to be patentable over the art. The dependent claims are believed to be patentable as well because they all are ultimately dependent on claim 1 or 14.

Finally, applicants appreciatively acknowledge the Examiner's statement that claim 8 "would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims." In light of the above, applicants respectfully believe that rewriting of claim 8 is unnecessary at this time.

In view of the foregoing, reconsideration and allowance of claims 1-20 solicited.

If an extension of time is required, petition for extension is herewith made. Any extension fee associated therewith should be charged to the Deposit Account of Lerner and Greenberg, P.A., No. 12-1099.

Please charge any other fees that might be due with respect to Sections 1.16 and 1.17 to the Deposit Account of Lerner

Appl. No. 10/629,924
Amdt. Dated July 28, 2005
Reply to Office Action of April 28, 2005

and Greenberg, P.A., No. 12-1099.

Respectfully submitted,

For Applicants

REL:cgm

RALPH E. LOCHER
REG. NO. 41,947

July 28, 2005

Lerner and Greenberg, P.A.
P.O. Box 2480
Hollywood, Florida 33022-2480
Tel.: (954) 925-1100
Fax: (954) 925-1101